

REMARKS

No claims have been amended, added, or canceled. Accordingly, no listing of claims is required. Claims 1, 3-4, 6-7, and 9-12 are pending.

Claims 1, 4, and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawasaki (U.S. Patent No. 6,246,414) in view of Sutherland (U.S. Patent No. 3,889,107). Claims 3, 6, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawasaki in view of Sutherland and Cosman (U.S. Patent No. 6,525,740). Claims 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawasaki in view of Sutherland and Gelb (U.S. Patent No. 6,515,674). These rejections are respectfully traversed.

Claims 1 and 3 recite, *inter alia*, "A method ... comprising ... sorting the plurality of polygons into polygons of a first color part and polygons of a second color part along a boundary line ... dividing polygons intersecting the boundary line along the boundary line; ... pasting up the first mono-color texture on the polygons belonging to the first color part, and the second mono-color texture on the polygons belonging to the second color part."

Claims 4 and 6 recite, *inter alia*, "An image processing apparatus comprising: control means for ... sorting the plurality of polygons into polygons of a first color part and polygons of a second color part along a boundary line ... dividing polygons intersecting the boundary line along the boundary line ... a rendering processor for pasting up the first mono-color texture on the polygons belonging to the first color, part and the second mono-color texture on the polygons belonging to the second color part."

Claim 7 and 9 recite, *inter alia*, "A record medium storing a program which ... comprises the steps of: ... sorting the plurality of polygons into polygons of a first color

part and polygons of a second color part along a boundary line ... dividing polygons intersecting the boundary line along the boundary line ... pasting up the first mono-color texture on the polygons belonging to the first color part and the second mono-color texture on the polygons belonging to the second color part.”

Each of the above-quoted independent claims include limitations which are directed towards dividing the polygons of an image which intersect a boundary line between a first color part and a second color part, and pasting a first mono-color texture on polygons of the first color part and a second mono-colored texture on polygons of the second color part.

Kawasaki is directed to an image processing method and apparatus which divides polygons for implementing a graphical technique known as “bump mapping.” In bump mapping, minute irregularities are rendered in order to achieve a more realistic graphical image. Column 3, lines 22-28. Kawasaki discloses a method wherein each polygon is divided into a two or more smaller polygons. Further, the polygon division taught by Kawasaki is based on polygon size. The division continues until each polygon has sides having a dimension less than a predetermined threshold. Fig. 5, steps S31-S34; column 3, lines 29-54; column 4, line 62 – column 5, line 25. After the polygon division, Kawasaki discloses calculating the brightness of each apex of each polygon. Column 5, lines 59-63. Contrary to the Office Action, Kawasaki no where discloses or suggests “pasting up the first mono-color texture on the polygons belonging to the first color part and the second mono-color texture on the polygons belonging to the second color part” as required by claims 1, 3, 4, 6, 7, and 9. The passage cited in the Office Action refers to step S24 of Fig. 4, which is a standard texture mapping operation, not the above recited texture mapping operation. Indeed, Kawasaki teaches against the recited texture mapping because Kawasaki is directed to a technique of bump mapping, which is utilized to achieve a more realistic rendering,

while pasting first and second mono-colored textures would result in a more stylistic but less realistic rendering. Kawasaki therefore fails to teach or suggest the above recited features of the independent claims.

Sutherland discloses a graphical apparatus and method for processing the following rendering features: hidden surfaces, shadows, and semi-transparent surfaces. Sutherland discloses identifying polygons which are not visible, and re-coloring the polygons which are not visible to a different color. If only a portion of a polygon is not visible, Sutherland discloses dividing the polygon and re-coloring the polygon corresponding to the portion of the original polygon which was not visible. See column 16, lines 45-48. Thus, while Sutherland discloses that a polygon may be divided, Sutherland does not teach or suggest "sorting the plurality of polygons into polygons of a first color part and polygons of a second color part along a boundary line ... dividing polygons intersecting the boundary line along the boundary line," as required by claims 1, 3, 4, 6, 7, and 9. Sutherland further does not disclose or suggest "pasting up the first mono-color texture on the polygons belonging to the first color part and the second mono-color texture on the polygons belonging to the second color part," as required by claims 1, 3, 4, 6, 7, and 9. Accordingly, Sutherland, whether taken singly or in combination with Kawasaki, also fails to disclose or suggest the about quoted limitations of the independent claims.

It should be noted that the Office Action has not clearly expressed a motivation to combine the two references. The motivation expressed by the Office Action appears to merely recognize the merits of each invention, but fails to clearly state why someone skilled in the art would be motivated to combine the teachings. Further, the Office Action also does not address the fact that Kawasaki discloses a sized-based division while Sutherland discloses a visibility-based division. The Office Action also fails to explain why the systems disclosed by Kawasaki or Sutherland would paste mono-color

textures to the polygons once the polygons are divided into a first color part and a second color part.

The Office Action additionally cites to Cosman and Gleb for their disclosure for the use of dot/inner products. However, neither Cosman nor Gleb, in any combination with Kawasaki and Sutherland, remedy the above noted deficiencies in the teachings and suggestions of Kawasaki and Sutherland.

Accordingly, independent claims 1, 3-4, 6-7, and 9 are believed to be allowable. Depending claims 10-12 are also believed to be allowable for at least the same reason as the independent claims.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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